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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,747	05/12/2005	Manfred A.A Lupke	SWH-11817US	9033
7590 Dennison Associates 133 Richmond Street West Toronto, ON MSH 2L7 CANADA			EXAMINER LEYSON, JOSEPH S	
			ART UNIT 1722	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,747	Applicant(s) LUPKE ET AL.	
	Examiner Joseph Leyson	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-36 is/are rejected.
- 7) ☒ Claim(s) 29-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed June 25, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

in paragraph [26.1], "Furthermore, the troughs 13 have a fixed relationship with the vacuum channels 45 shown in the figures." and "With this arrangement, the interchangeable face attachments do not affect the relationship of the vacuum channels to the integral troughs";

in paragraph [26.3], "As the bolt forces the bracket 16 inwardly, the face of 67 and 69 cooperate to bring the crest forming parts shown as 15 into abutment with the crest mounting portion of the mold block. The bracket 35 assures the abutment of the crest forming parts with the crest mounting portions."; and

in replacement drawings, the designation of "45" on elements shown in figures 4 and 5, which designates the elements as vacuum channels.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. The drawings were received on June 25, 2007. These drawings are not acceptable and are objected to because they contain new matter, as mentioned above.

Claim Objections

3. Claims 29-34 are objected to because of the following informalities:

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in line 15 of claim 29, "with with" should be changed to --with--, for proper idiomatic language; and

in line 6 of claim 34, "great" should be changed to --greater--, for proper idiomatic language. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 30, 31, 35 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 30 recites that "each bracket cooperating with said recess in the respective crest forming part and the recess in said mold block to abut said crest forming part and said crest mounting portion as said bolt moves said bracket to an engaged position" which is new matter. The original specification does not disclose how the crest forming part and the crest mounting portion operate relative to the bracket and bolt, and does not disclose the bolt moving the bracket to the engaged position.

Claims 31 and 35 and 36 disclose vacuum channels having a fixed relationship with the integral troughs, which is new matter. The original specification (figs. 4 and 5; p. 6, lines 22-30) discloses that figures 4 and 5 show that the mold block sections

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include sophisticated vacuum and cooling channels required to first shape and then cool the plastic at the faces of the mold blocks and that the interchangeability of the face attachments at the mounting surfaces 12 of the mold block sections in no way impedes or affects either the vacuum or the cooling channels. However, after reviewing figures 4 and 5, it is not clear what elements are the vacuum and cooling channels, or how the vacuum and cooling channels operate relative to the other apparatus elements.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 36 is indefinite because it is dependent upon cancelled claim 25.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 29, 30, 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over German reference (DE 200 09 030) in view of Chittenden et al. (U.S. Patent 3,380,121) and Lupke et al. (U.S. Patent 6,155,813).

German reference (DE 200 09 030) discloses a molding system including a plurality of mold blocks 9 which circulate and move along a molding path to form a mold tunnel (i.e., fig. 1) to form double wall plastic pipe having an outer wall with corrugations which set an outside diameter of the pipe corrugations and an inner wall around a bore through the pipe (i.e., figs. 7 and 8), and the mold blocks 9 having profiled faces which determine shape of the pipe. Each mold block 9 includes a mounting surface (i.e., fig. 2), and the system further includes a plurality of mold block face attachments 18, 19, 21, 23, 25 which interchangeably mount to the mounting surface for reconfiguring of the profiled faces of the mold blocks 9 without replacing the mold blocks 9 (i.e., figs. 2-6). The mold block face attachments are varied to change the depth of the corrugations and to change the internal diameter of the pipe. Note that, in fig. 5, if only the attachments 23 are reconfigured with the attachments 25, the profiled faces would be reconfigured in profile between a first and a second face profile to vary both depth of the corrugations and diameter of the bore through the pipe without varying the external diameter of the pipe, and the profiled faces of the mold blocks 9 when configured with a first face profile 23 forming the pipe with a first corrugation depth and a first bore

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diameter and when configured with the second face profile 25 forming the pipe with a second corrugation depth greater than the first corrugation depth and a second bore diameter less than the first bore diameter. The inner wall of the pipe has a wall thickness that remains essentially constant when reconfiguring the profiled faces of the mold blocks between the first and second face profiles (i.e., figs. 7 and 8). The profiled faces of said mold blocks include alternating crests and troughs (i.e., figs. 3-6) to form the corrugations in the outer wall of the pipe. The attachments include first and second crest forming members 23, 25 for changing the height of the crests and trough forming members 18, 21 for changing the depth of the troughs (i.e., figs. 5 and 6), the first crest forming members 23 being shorter than the second crest forming members 25 and being used to provide the first face profile on the mold blocks, the second crest forming members 25 being longer than the first crest forming members 23 and being used to provide the second face profile on the mold blocks 9. The crest forming members 23, 25 are mounted in crest mounting portions formed in and integral with the mold blocks 9 (i.e., figs. 5 and 6). The crest mounting portions include a projecting stepped shoulder (i.e., the projecting shoulders to either side of slot 13 in figs. 5 and 6) received in a corresponding recess (i.e., the recesses to either side of undercut base 22) of the crest forming parts 23, 25 to locate the cresting forming parts 23, 25 in the mold block 9 along a length of the crest forming parts 23, 25 (i.e., figs. 5 and 6). However, German reference (DE 200 09 030) does not disclose the troughs being formed in and integral with the mold block, recesses, mounting bracket arrangements, or first and second cooling plugs, as disclosed by the instant claims.

Chittenden et al. (U.S. Patent 3,380,121) disclose a mold block 10 and a face attachment 16, 18, the face attachment at opposite ends thereof including a recess that cooperates with a recess of said mold block to collectively define securement cavities in abutment faces of the mold block (i.e., figs. 2 and 4), the face attachment being secured to the mold block by two mounting bracket arrangements 22, 23 located at opposite ends of the face attachment in said securement cavities; the face attachment, with the respective mounting bracket arrangements in a non engaged position, allowing dismounting of the face attachment by radial separation.

Lupke et al. (U.S. Patent 6,155,813) disclose an apparatus system for making double walled plastic pipe including a cooling plug 27 for cooling the pipe, the cooling plug 27 is dimensioned relative to the mold tunnel to urge the inner wall 22 of the pipe against the outer wall 18 while in a mold tunnel and to define the inner diameter of the double walled plastic pipe (i.e., col. 1, lines 25-50; and col. 3, lines 5-18).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the interchangeable trough forming members of German reference (DE 200 09 030) to be formed in and integral with the mold blocks because it would be well within an artisan of ordinary skill to make a one piece construction instead of a separable structure, In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965); to modify the apparatus of German reference (DE 200 09 030) with recesses and mounting bracket arrangements, as disclosed by Chittenden et al. (U.S. Patent 3,380,121), because such a modification would enable secure abutting attachment of the face attachments to the mold block; and to modify the molding system of German

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reference (DE 200 09 030) with a cooling plug because such a modification would cool the pipe and urge the inner wall of the pipe into the outer wall of the pipe while in the mold tunnel , as disclosed by Lupke et al. (U.S. Patent 6,155,813), and to further modify the apparatus system of German reference (DE 200 09 030) with first and second cooling plugs of different diameter because German reference (DE 200 09 030) discloses changing the mold tunnel dimensions with the attachments and because Lupke et al. (U.S. Patent 6,155,813) disclose that cooling plugs are dimensioned relative to the mold tunnel. In other words, if the mold tunnel dimensions are changed, then the cooling plug would be correspondingly changed since its dimensions are dependent upon the mold tunnel dimensions as disclosed by Lupke et al. (U.S. Patent 6,155,813). Note that the different internal diameters of the pipes in figures 7 and 8 of German reference (DE 200 09 030) would require cooling plugs of corresponding different diameter, as taught by Lupke et al. (U.S. Patent 6,155,813). As to claim 30, note that the portions of the brackets 22, 23 in Chittenden et al. (U.S. Patent 3,380,121) received in the recesses define arm portions.

11. Claims 31, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over German reference (DE 200 09 030) in view of Chittenden et al. (U.S. Patent 3,380,121) and Lupke et al. (U.S. Patent 6,155,813) as applied to claims 29, 30 and 32-34 above, and further in view of Hegler et al. (U.S. Patent 4,492,551).

Hegler et al. (U.S. Patent 4,492,551) disclose a molding system including a plurality of mold-blocks 2, 2' which move along a molding path to form corrugated plastic pipe, each mold block 2, 2' having a profiled face which determines shape, of the

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pipe, the profiled face including troughs and crests (i.e., figs. 4 and 5) formed in and integral with the mold blocks 2, 2', a vacuum channel 28, 28' located within the mold blocks 2, 2' beneath the troughs and the crests of the profiled faces of the mold blocks in fixed relationship thereto, vacuum channels 28, 28' being connected to the troughs by vacuum slots 29, and cooling channels 33, 33', 35, 35' located within the mold blocks beneath the troughs and the crests.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the molding system of Hegler et al. (U.S. Patent 4,492,551) with vacuum channels as disclosed by Hegler et al. (U.S. Patent 4,492,551) because such a modification would enable vacuum forming of the pipe.

12. Applicant's arguments filed June 25, 2007 have been fully considered but they are not persuasive.

Applicants argue that the German reference (DE 200 09 030) requires a sophisticated dove tail type securement. However, the scope of the instant claims still read on such securement.

Applicants argue that it is clear from the prior art located by the Examiner and used in the industry, that pipe molding systems use either integral mold blocks or use fully variable mold blocks which receive molding surfaces or inserts therein that solely determine the shape of the product being produced. There is no disclosure or even suggestion in the prior art of the particular combination claimed and the advantages that such a system can provide. The examiner respectfully disagrees. Applicants admit that

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integral and variable mold blocks are known. Therefore, there is disclosure and/or suggestion to make the particular combination, as mentioned in the art rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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